

## REMARKS

Claims 1-35 are pending and under consideration. In the non-final Office Action of July 18, 2006, the Examiner made the following disposition:

- A.) Commented on Applicants' claim for foreign priority.
- B.) Objected to claim 21.
- C.) Rejected claims 1-14 and 20-35 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris, et al. (Coulouris, Distributed Systems Concepts and Design, 2d. ed., Addison-Wesley, 1994) ("Coulouris")* in view of *Fidge (Fidge, "Logical Time in Distributed Computing Systems," Computer, Vol. 24, Issue 8, pp. 28-33, ISSN 0018-9162, August 1991) ("Fidge")*.
- D.) Rejected claims 15-19 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge* and further in view of *Liedtke (Liedtke, "Improving IPC by Kernal Design," ACM Symposium on Operating System Principles, Proceedings of the Fourteenth ACM Symposium on Operating Systems Principles, ACM Press, pp. 175-188, 1994) ("Liedtke")*.

Applicants respectfully traverse the rejections and address the Examiner's disposition below.

- A.) Regarding Examiner's comments on Applicants' claim for foreign priority:

Applicants will submit a certified copy of the foreign priority application in a separate communication.

- B.) Objection to claim 21:

Claim 21 has been amended as per the Examiner's request to overcome the objection.

Applicants respectfully submit the objection has been overcome and request that it be withdrawn.

C.) Rejection of claims 1-14 and 20-35 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge*:

Applicants respectfully disagree with the rejection.

Claims 1, 12, 22, 23, 34, and 35 have been amended to clarify that the synchronization call is a separate call from the service calls. Claims 21 and 34 have been amended to correct informalities.

Independent claims 1, 12, 22, 23, 34, and 35, each as amended, each claim subject matter relating to service calls that are generated by a plurality of threads at a server and received at a client. The client receives a synchronization call, which indicates that one of the threads executed at the server has changed and indicates a number of service calls generated by the threads at the server prior to the thread change. The synchronization call is a separate call from the service calls and is transmitted to the client to allow the client to synchronize a service call execution.

In an illustrative example, if one of the threads executing at the server has changed, the server sends a synchronization message to the client. The synchronization message is a separate message from the service calls and indicates that a thread has changed and indicates that 20 service calls have been generated by the server threads prior to the change. The client may synchronize service call execution by knowing that 20 service calls have been generated. If 10 service calls have been executed at the client prior to receiving the synchronization call, then the client may place at least one of the service calls into a wait position to synchronize.

This is clearly unlike *Coulouris* in view of *Fidge*, which fails to disclose or suggest Applicants' claimed synchronization call that is separate from service calls. The Examiner cites several passages from *Coulouris*, however Applicants submit that none of the cited passages suggest a synchronization call that is separate from *Coulouris*' other messages. The passages cited by the Examiner relate to two types of subject matter: 1) timestamps and 2) remote procedure call ordering. On the subject of timestamps, *Coulouris* describes that multiple processes ( $p_i$ ) can pass messages to each other. Every message carries a time stamp  $VT_i$ , which allows the messages to be placed in proper order upon receipt. *Coulouris* 326 and 342. Thus, unlike Applicants' claimed synchronization calls, *Coulouris*' timestamped messages are not separate from its other messages. *Coulouris* teaches only one type of message, and every message is timestamped. Thus, *Coulouris*' messages require a greater amount of processing resources and processing time on both the sending end and the receiving end compared to

Applicants' claimed invention, which includes a synchronization call that is separate from service calls.

*Coulouris* also discloses a type of message called "remote procedure calls" (RPCs) that can be synchronously or asynchronously received. *Coulouris* pages 150-151. When RPCs are asynchronously received, they can be reordered into a desired order. *Id.* Nowhere does *Coulouris*' discussion of RPCs disclose or suggest a synchronization call, which is separate from service calls, that identifies 1) whether a thread has changed or 2) the number of calls generated by threads prior to the thread change. Instead, *Coulouris* merely describes that RPCs can be reordered.

Thus, *Coulouris* fails to disclose or suggest Applicants' claimed synchronization call.

*Fidge* also fails to disclose or suggest Applicants' claimed synchronization call. The Examiner argues that *Fidge* at page 30, Rules B and F, discloses or suggest Applicants' claimed synchronization call. Applicants respectfully disagree. *Fidge* describes a method for ordering messages by using counter values attached to every message. *Fidge* 29. Each message includes a numerical counter value associated with the process instance that sends the message. *Id.* Nowhere does *Fidge* disclose or suggest a synchronization call, which is separate from service calls, that identifies 1) whether a thread has changed or 2) the number of calls generated by threads prior to the thread change. Instead, *Fidge* merely teaches that its messages include a counter value associated with the sending processing instance.

Thus, *Coulouris* in view of *Fidge* still fails to disclose or suggest Applicants' claims 1, 12, 22, 23, 34, and 35.

Claims 2-11, 13-21, and 24-33 depend directly or indirectly from claims 1, 12, or 23 and are therefore allowable for at least the same reasons that claims 1, 12, and 23 are allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

D.) Rejected claims 15-19 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge* and further in view of *Liedtke*:

Applicants respectfully disagree with the rejection.

Independent claim 12 is allowable over *Coulouris* in view of *Fidge* as discussed above. *Liedtke* still fails to disclose or suggest Applicants' claimed synchronization call that is separate from service calls. Therefore, *Coulouris* in view of *Fidge* and further in view of *Liedtke* still fails to disclose or suggest claim 12.

Claims 15-19 depend directly or indirectly from claim 12 and are therefore allowable for at least the same reasons that claim 12 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-35 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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